

AMENDMENTS TO THE SPECIFICATION

Please insert the following paragraph at page 1 after the title and before the first paragraph:

This application is a 371 National Stage Entry of PCT/GB2004/001135 filed on March 17, 2004.

Please insert the following paragraph at page 1 after the first full paragraph and before the second paragraph:

BACKGROUND OF THE INVENTION

Please insert the following paragraph at page 5 before the first full paragraph:

BRIEF SUMMARY OF THE INVENTION

Please insert the following paragraph at page 8 after the first full paragraph and before the second full paragraph:

BRIEF DESCRIPTION OF THE DRAWINGS

Please insert the following paragraph at page 9 before the first full paragraph:

DESCRIPTION OF THE EXEMPLARY EMBODIMENTS

Please replace the 4th full paragraph on page 8 with the following amended paragraph:

figures 2A and 2B show shows output and transfer characteristics of an embossed vertical FET with a semiconducting polymer active layer of poly(dioctylfluorene-co-bithiophene) (F8T2);

Please replace the 5th full paragraph on page 8 with the following amended paragraph:

figures 3A and 3B show ~~shows~~ channel length scaling analysis of embossed planar- and vertical-channel F8T2;

Please replace the 6th full paragraph on page 8 with the following amended paragraph

figures 4A and 4B show ~~shows~~ output and transfer characteristics of an embossed vertical-channel FET with poly(3-hexylthiophene) (P3HT);
figures 5A to 5D show ~~shows~~ formation of a self-aligned gate electrode inside the embossed FET channel;

Please replace the 7th full paragraph on page 8 with the following amended paragraph

figures 5A to 5D show ~~shows~~ formation of a self-aligned gate electrode inside the embossed FET channel;

Please replace the 4^{8h} full paragraph on page 8 with the following amended paragraph

figures 6A to 6C show ~~shows~~ a schematic diagram of a vertical-channel FET sensor integrated into a microfluidic channel according to one embodiment of the present invention;

Please replace the 4^{9h} full paragraph on page 8 with the following amended paragraph

figures 7A and 7B show ~~shows~~ other sensing devices integrated into a microfluidic channel; and

Please replace the 4^{10h} full paragraph on page 8 with the following amended paragraph

figures 8A and 8B show shows an application of an embodiment of the present invention.